EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	210	558/311.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:15
L2	237	558/313.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:15
L3	466	564/142.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:15
L4	890	l1 or l2 or l3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:15
L5	21	l4 and naphthol	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:16
L7	58	l4 and naphthalene	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:17
L8	68	l5 or l7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:17

EAST Search History

L9	120	548/160.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:49
L10	501	560/42.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:49
L11	233	558/420.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:49
L12	603	558/416.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:50
L13	1393	l9 or l10 or l11 or l12	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:50
L14	194	l13 and naphthalene	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:50
L15	46	l13 and naphthol	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:50

EAST Search History

L16	228	l14 or l15	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:51
L17	296	l8 or l16	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/31 11:51

STN (Registry/Caplus) Structure Searches (Claims 1 & 4)

Element Count :
Node 39: Limited
C,C1-7

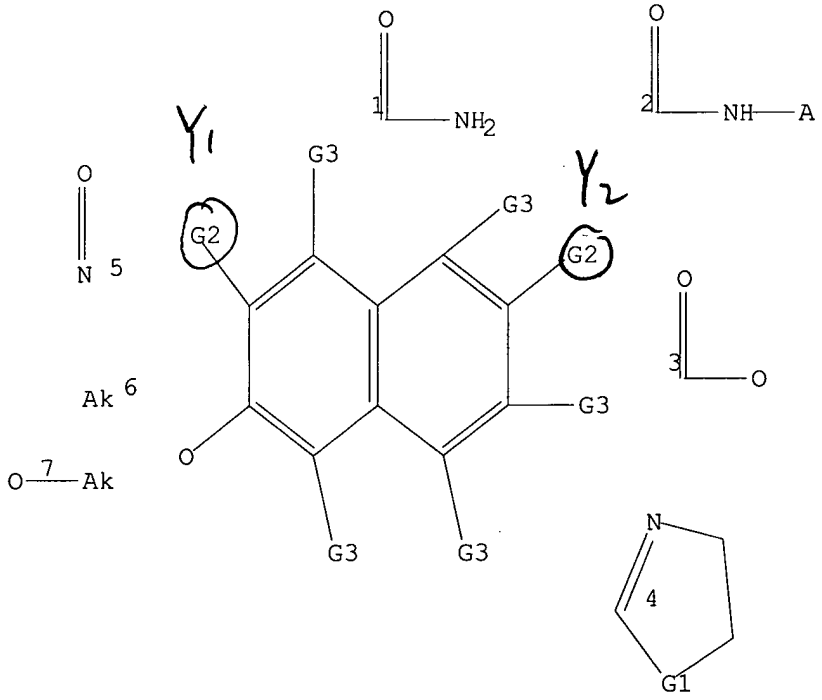
Node 40: Limited
C,C1-7

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR

$G_3 = Q$

$G_2 = Y_1 + Y_2$



G1 O,S,N

G2 [@1],[@2],[@3],[@4]

G3 H,NO2,X,[@5],[@6],[@7]

Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 13:10:58 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 4349 TO ITERATE

46.0% PROCESSED 2000 ITERATIONS 6 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

```
=> s l1 full
FULL SEARCH INITIATED 13:11:16 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED      89334 TO ITERATE

100.0% PROCESSED   89334 ITERATIONS                    167 ANSWERS
SEARCH TIME: 00.00.02

L3          167 SEA SSS FUL L1

=> fil caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                             178.36     178.57

FILE 'CAPLUS' ENTERED AT 13:11:24 ON 31 JAN 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)
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FILE COVERS 1907 - 31 Jan 2008  VOL 148 ISS 5
FILE LAST UPDATED: 30 Jan 2008  (20080130/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

=> s l3
L4          50 L3
=> d ibib abs hitstr 50
```

```
=> d his

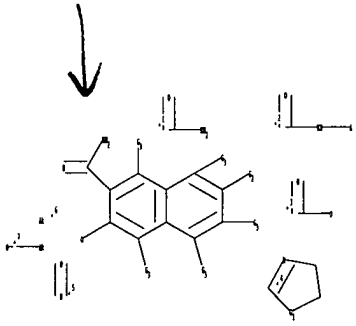
     (FILE 'HOME' ENTERED AT 13:10:29 ON 31 JAN 2008)

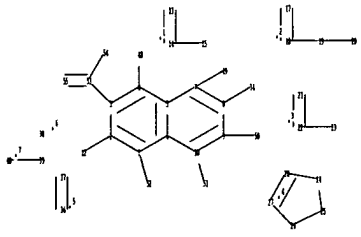
     FILE 'REGISTRY' ENTERED AT 13:10:38 ON 31 JAN 2008
L1              STRUCTURE UPLOADED
L2            6 S L1
L3          167 S L1 FULL

     FILE 'CAPLUS' ENTERED AT 13:11:24 ON 31 JAN 2008
L4           50 S L3

=>
Uploading C:\Program Files\Stnexp\Queries\10566182\1 Y1 is CONH2.str
```

$Y_1 =$





```
chain nodes :
12  13  14  15  17  18  19  20  21  22  23  34  36  37  38  39  40  48  49  50  51
52  53  54  55
ring nodes :
1  2  3  4  5  6  7  8  9  10  24  25  26  27  28
chain bonds :
1-52  2-12  3-53  4-48  7-49  8-34  9-50  10-51  13-14  14-15  17-18  18-19  19-20
21-22  22-23  36-37  39-40  53-54  53-55
ring bonds :
1-2  1-6  2-3  3-4  4-5  5-6  5-7  6-10  7-8  8-9  9-10  24-25  24-28  25-26  26-27
 27-28
exact/norm bonds :
```

```
1-52  2-12  3-53  4-48  7-49  8-34  9-50  10-51  13-14  14-15  17-18  18-19  19-20
21-22  22-23  24-25  24-28  25-26  26-27  27-28  36-37  39-40  53-54  53-55
normalized bonds :
1-2  1-6  2-3  3-4  4-5  5-6  5-7  6-10  7-8  8-9  9-10
isolated ring systems :
containing 1 :


G1:O,S,N

G2:[*1],[*2],[*3],[*4]

G3:H,NO2,X,[*5],[*6],[*7]

Connectivity :
38:1 E exact RC ring/chain  39:1 E exact RC ring/chain
Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
12:CLASS  13:CLASS  14:CLASS  15:CLASS  17:CLASS  18:CLASS  19:CLASS  20:CLASS
21:CLASS  22:CLASS  23:CLASS  24:Atom  25:Atom  26:Atom  27:Atom  28:Atom  34:CLASS
 36:CLASS  37:CLASS  38:CLASS  39:CLASS  40:CLASS  48:CLASS  49:CLASS  50:CLASS
51:CLASS  52:CLASS  53:CLASS  54:CLASS  55:CLASS
Element Count :
Node 38: Limited
    C,C1-7

Node 39: Limited
    C,C1-7




L5      STRUCTURE UPLOADED

=> d
L5 HAS NO ANSWERS
L5              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=>
Uploading C:\Program Files\Stnexp\Queries\10566182\1 Y2 is CONH2.str
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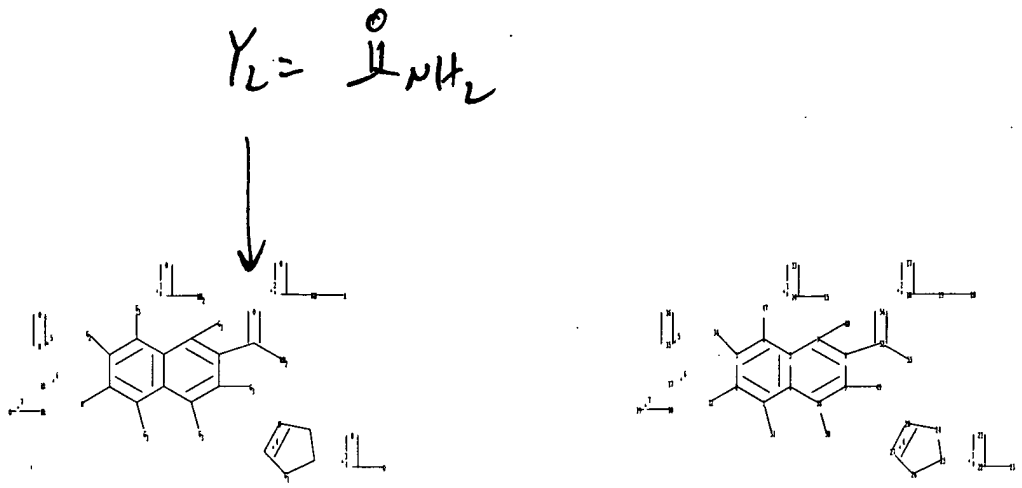


chain nodes :
12 13 14 15 17 18 19 20 21 22 23 34 35 36 37 38 39 47 48 49 50
51 52 54 55
ring nodes :
1 2 3 4 5 6 7 8 9 10 24 25 26 27 28
chain bonds :
1-51 2-12 3-34 4-47 7-48 8-52 9-49 10-50 13-14 14-15 17-18 18-19 19-20
21-22 22-23 35-36 38-39 52-54 52-55
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 24-25 24-28 25-26 26-27
27-28
exact/norm bonds :
1-51 2-12 3-34 4-47 7-48 8-52 9-49 10-50 13-14 14-15 17-18 18-19 19-20
21-22 22-23 24-25 24-28 25-26 26-27 27-28 35-36 38-39 52-54 52-55
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10
isolated ring systems :
containing 1 :

G1:O,S,N

G2:[*1],[*2],[*3],[*4]

G3:H,NO2,X,[*5],[*6],[*7]

```
Connectivity :
37:1 E exact RC ring/chain  38:1 E exact RC ring/chain
Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
12:CLASS  13:CLASS  14:CLASS  15:CLASS  17:CLASS  18:CLASS  19:CLASS  20:CLASS
21:CLASS  22:CLASS  23:CLASS  24:Atom  25:Atom  26:Atom  27:Atom  28:Atom  34:CLASS
 35:CLASS  36:CLASS  37:CLASS  38:CLASS  39:CLASS  47:CLASS  48:CLASS  49:CLASS
50:CLASS  51:CLASS  52:CLASS  54:CLASS  55:CLASS
Element Count :
Node 37: Limited
    C,C1-7

Node 38: Limited
    C,C1-7



L6      STRUCTURE UPLOADED

=> d
L6 HAS NO ANSWERS
L6              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l5 full sub=L3
   REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.



FULL SUBSET SEARCH INITIATED 13:14:51 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED -       35 TO ITERATE

100.0% PROCESSED       35 ITERATIONS                          15 ANSWERS
SEARCH TIME: 00.00.01

L7           15 SEA SUB=L3 SSS FUL L5


SUBSET IS IGNORED AS A SCOPE FOR THIS SEARCH
L8           3 L7

=> s l6 full sub=L3
   REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.
```

```
FULL SUBSET SEARCH INITIATED 13:15:03 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED -       55 TO ITERATE

100.0% PROCESSED       55 ITERATIONS                    16 ANSWERS
SEARCH TIME: 00.00.01

L9            16 SEA SUB=L3 SSS FUL L6


SUBSET IS IGNORED AS A SCOPE FOR THIS SEARCH
L10            3 L9

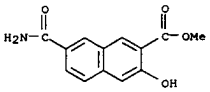
=> s l8 or l10
L11            4 L8 OR L10

=> d ibib abs hitstr l11 tot
```

L11 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1448749 CAPLUS
DOCUMENT NUMBER: 148:56957
TITLE: Method for producing naphthalene carboxylic acid amides
INVENTOR(S): Wakamori, Hiroyuki; Yonetani, Nobuhiro
PATENT ASSIGNEE(S): UENO Fine Chemicals Industry, Ltd., Japan
SOURCE: Eur. Pat. Appl., 14pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

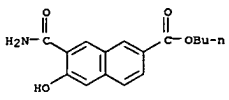
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1867629	A2	20071219	EP 2007-11501	20070612
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
JP 2007332095	A	20071227	JP 2006-167463	20060616
CN 101088987	A	20071219	CN 2007-10128293	20070615
PRIORITY APPLN. INFO.:			JP 2006-167463 A	20060616

OTHER SOURCE(S): CASREACT 148:56957
AB The present invention provides a method for producing a naphthalenecarboxylic acid amide compound comprising reacting a naphthalenecarboxylic acid halide compound with ammonium acetate in a solvent having an ether bond. According to the method of the present invention, a naphthalene carboxylic acid amide compound can be obtained at high yield and at low cost.
IT 838872-93-8P 838872-95-0P
RL: IMF (Industrial manufacture); PREP (Preparation)
(method for producing naphthalene carboxylic acid amides)
RN 838872-93-8 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-3-hydroxy-, methyl ester (CA INDEX NAME)



RN 838872-95-0 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-6-hydroxy-, butyl ester (CA INDEX NAME)

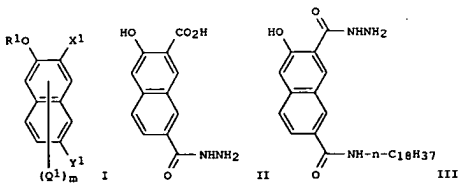
L11 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L11 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:1093128 CAPLUS
DOCUMENT NUMBER: 145:438423
TITLE: Hydroxynaphthalenedicarboxylic acid hydrazide and derivatives thereof, potentially useful as azo couplers, rubber additives, or curing agents or their precursors, and a process for preparing them
INVENTOR(S): Wakamori, Hiroyuki
PATENT ASSIGNEE(S): Kabushiki Kaisha Ueno Seiyaku Oyo Kenkyujo, Japan
SOURCE: Eur. Pat. Appl., 18pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

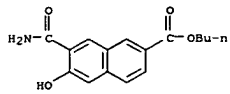
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1712546	A1	20061018	EP 2006-7914	20060413
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
JP 2006290838	A	20061026	JP 2005-116809	20050414
CN 1847218	A	20061018	CN 2006-10084187	20060413
US 2006231589	A1	20061019	US 2006-403917	20060414
PRIORITY APPLN. INFO.:			JP 2005-116809 A	20050414

OTHER SOURCE(S): CASREACT 145:438423; MARPAT 145:438423
GI

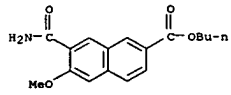


AB The - present invention provides a hydroxynaphthalenedicarboxylic acid hydrazide or a derivative thereof represented by formula (1): wherein X1 is a group selected from the group consisting of carboxyl group, a group represented by formula (2) and a group represented by formula (3): -CO-NH-Z (2) -CO-NHNH2 (3) Y1 is a group selected from the group consisting of carboxyl group, carbamoyl group, a group represented by formula (2), a group represented by formula (3) and a group represented by formula (4): -CO-O-A(4) provided that at least one of X1 and Y1 is a group represented by formula (3). The invention provides a hydroxynaphthalenedicarboxylic acid hydrazide or derivative I (wherein X1 =

L11 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CO2H, CONHZ, or CONHNH2; Y1 = CO2H, carbamoyl, CONHZ, CONHNH2, or COOA; provided that at least 1 of X1 and Y1 = CONHNH2; Z = optionally branched, substituted, and/or (un)satd. C1-20 aliph., optionally substituted arom., or optionally substituted heterocyclic with conjugated double bonds; A = C1-6 alkyl; R1 = H, (un)branched C1-20 alkyl optionally substituted by OH and/or halo, or C7-11 aralkyl; Q1 = C1-6 alkyl or alkoxy, halo, NO2, or OH; m = 0-5; and provided that Q1 groups are independent when m = 2-5]. Also provided is a process for prepg. I by reaction of corresponding esters or amides (at least one of X and Y groups is COOA or carbamoyl) with hydrazine monohydrate, sulfate, (di)hydrochloride, hydrobromide, or dihydrazine sulfate, at 20-110°. I may be useful as coupler components of azo compds., rubber additives for tires, curing agents/hardening accelerators for epoxy resins, or as synthetic raw materials for these products (no data). Five synthetic examples are given, as well as IR spectra for the products. For instance, a mixt. of 2-hydroxy-3-(hydroxycarbonyl)-6-(n-butoxycarbonyl)naphthalene and hydrazine monohydrate in n-BuOH was heated to 100° over 1 h and stirred at 100° for 72 h to give cryst. hydrazide II with a mol. conversion rate not less than 95%. Similarly, the hydrazide III was prepd. from the corresponding Me ester.
IT 838872-95-0, 2-Hydroxy-3-(aminocarbonyl)-6-(n-butoxycarbonyl)naphthalene 838872-96-1, 2-Methoxy-3-(aminocarbonyl)-6-(n-butoxycarbonyl)naphthalene
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; preparation of hydroxynaphthalenedicarboxylic acid hydrazides and derivs. as azo couplers, rubber additives, curing agents, or precursors, by hydrazidation of esters)
RN 838872-95-0 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-6-hydroxy-, butyl ester (CA INDEX NAME)



RN 838872-96-1 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-6-methoxy-, butyl ester (CA INDEX NAME)



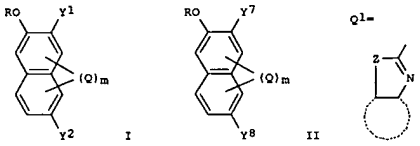
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:120871 CAPLUS
DOCUMENT NUMBER: 142:197705
TITLE: Preparation of (aminocarbonyl)naphthol derivative, cyanonaphthol derivative, and method for producing them
INVENTOR(S): Ueno, Ryuzo; Kitayama, Masaya; Wakamori, Hiroyuki; Nishiaki, Miwa; Tanikawa, Katsunori
PATENT ASSIGNEE(S): Kabushiki Kaisha Ueno Seiyaku Oyo Kenkyujo, Japan
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005012231	A1	20050210	WO 2004-JP11014		20040727
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
EP 1652837	A1	20060503	EP 2004-748169		20040727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK					
CN 1860096	A	20061108	CN 2004-80027967		20040727
US 2006205952	A1	20060914	US 2006-566182		20060127
PRIORITY APPLN. INFO.:			JP 2003-283894	A	20030731
			JP 2004-28333	A	20040204
			WO 2004-JP11014	W	20040727

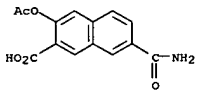
OTHER SOURCE(S): MARPAT 142:197705
GI

L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

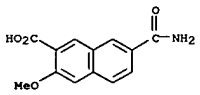


AB An aminocarbonyl naphthol derivative represented by the formula (I) [wherein
Y1 and Y2 represent a group selected from the group consisting of aminocarbonyl groups, carboxyl groups and groups represented by the formulas -(CONH)n-X1, -CO-O-X2, and Q1; and at least one of Y1 and Y2 is an aminocarbonyl group; wherein n = 1, 2; X1 = C1-20 (un)substituted and optionally branched aliphatic group optionally possessing unsatd. bonds, (un)substituted aromatic group, (un)substituted heterocyclyl possessing conjugated double bonds; X2 = C1-20 (un)substituted and optionally branched aliphatic group optionally possessing unsatd. bonds; the ring A = (un)substituted aromatic group, (un)substituted heterocyclyl possessing conjugated double bonds] is prepared by amidation of the corresponding hydroxynaphthalenecarboxylic acid derivative A novel cyanonaphthol derivative represented by the formula (II) [Y7 and Y8 independently represent a group selected from the group consisting of cyano group, groups represented by the formulas -(CONH)n-X1, -CO-O-X2, and Q1, carboxyl group, and aminocarbonyl group; and at least one of Y7 and Y8 is a cyano group] or salts thereof is prepared by treating the (aminocarbonyl)naphthol derivative with POCl3 for converting the aminocarbonyl group into the cyano group. Thus, 4.6 g 2-methoxy-3-(phenylaminocarbonyl)naphthalene-6-carboxylic acid was suspended in 45 g THF, treated with 3.6 g SOCl2 and allowed to react at 45° for 1 h, followed by distilling off excess SOCl2 together with the solvent to give a residue (acid chloride). The residue was dissolved in 50 g THF and warmed to 45°, followed by blowing NH3(g) into the solution, and the resulting mixture was allowed to react for 1 h to give, after filtration of the precipitated crystals, 3.0 g 2-methoxy-3-(phenylaminocarbonyl)naphthalene-6-carboxamide (III). III (3.0 g) was suspended in 40 g 1,2-dichlorobenzene, treated with 1.0 g POCl3, allowed to react at 140° for 1 h, cooled to 80°, treated with 50 g H2O, thoroughly stirred, to give, after filtration of the precipitated crystals, washing with MeOH, and drying, 1.8 g 2-methoxy-3-(phenylaminocarbonyl)-6-cyanonaphthalene as a white powder.
IT 838873-27-1 838873-28-2 838873-29-3 838873-30-6 838873-31-7 838873-32-8

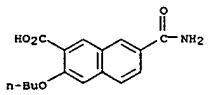
L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
838873-33-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of (aminocarbonyl)naphthol deriv. by amidation of carboxynaphthol deriv. and its conversion into cyanonaphthol deriv. by dehydration with phosphorus oxychloride)
RN 838873-27-1 CAPLUS
CN 2-Naphthalenecarboxylic acid, 3-(acetyloxy)-7-(aminocarbonyl)- (CA INDEX NAME)



RN 838873-28-2 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-3-methoxy- (CA INDEX NAME)



RN 838873-29-3 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-3-butoxy- (CA INDEX NAME)



RN 838873-30-6 CAPLUS
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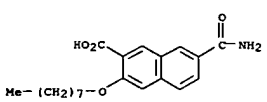
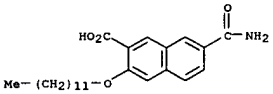
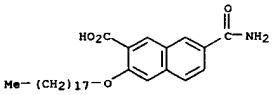


RN 838873-31-7 CAPLUS

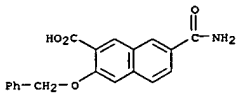
L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-3-(dodecyloxy)- (CA INDEX NAME)



RN 838873-32-8 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-3-(octadecyloxy)- (CA INDEX NAME)

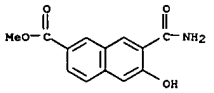


RN 838873-33-9 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-3-(phenylmethoxy)- (CA INDEX NAME)

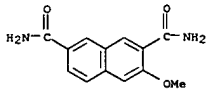


IT 838872-94-9P 838872-99-4P 838873-04-4P 838873-09-9P 838873-40-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of (aminocarbonyl)naphthol derivative by amidation of carboxynaphthol derivative and its conversion into cyanonaphthol derivative by dehydration with phosphorus oxychloride)
RN 838872-94-9 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-6-hydroxy-, methyl ester (CA INDEX NAME)

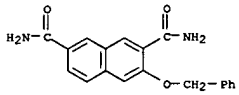
L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



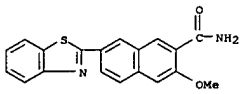
RN 838872-99-4 CAPLUS
CN 2,7-Naphthalenedicarboxamide, 3-methoxy- (CA INDEX NAME)



RN 838873-04-4 CAPLUS
CN 2,7-Naphthalenedicarboxamide, 3-(phenylmethoxy)- (CA INDEX NAME)

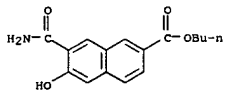


RN 838873-09-9 CAPLUS
CN 2-Naphthalenecarboxamide, 7-(2-benzothiazolyl)-3-methoxy- (CA INDEX NAME)

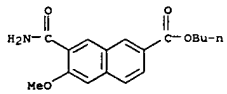


RN 838873-40-8 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-6-methoxy-, methyl ester (CA INDEX NAME)

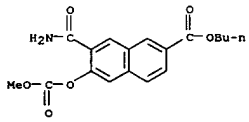
L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



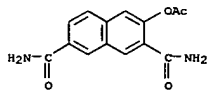
RN 838872-96-1 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-6-methoxy-, butyl ester (CA INDEX NAME)



RN 838872-97-2 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-6-[(methoxycarbonyl)oxy]-, butyl ester (CA INDEX NAME)

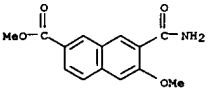


RN 838872-98-3 CAPLUS
CN 2,7-Naphthalenedicarboxamide, 3-(acetyloxy)- (CA INDEX NAME)



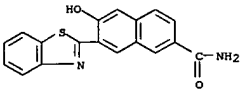
RN 838873-00-0 CAPLUS
CN 2,7-Naphthalenedicarboxamide, 3-butoxy- (CA INDEX NAME)

L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

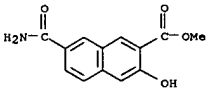


IT 808751-34-0P 838872-93-8P 838872-95-0P
838872-96-1P 838872-97-2P 838872-98-3P
838873-00-0P 838873-01-1P 838873-02-2P
838873-03-3P 838873-08-8P 838873-10-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of (aminocarbonyl)naphthol derivative by amidation of carboxynaphthol derivative and its conversion into cyanonaphthol derivative by
dehydration with phosphorus oxychloride)

RN 808751-34-0 CAPLUS
CN 2-Naphthalenecarboxamide, 7-(2-benzothiazolyl)-6-hydroxy- (CA INDEX NAME)

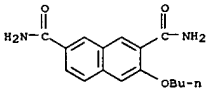


RN 838872-93-8 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-3-hydroxy-, methyl ester (CA INDEX NAME)

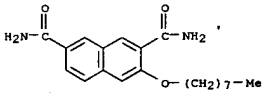


RN 838872-95-0 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-6-hydroxy-, butyl ester (CA INDEX NAME)

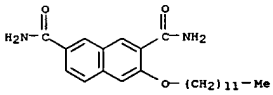
L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



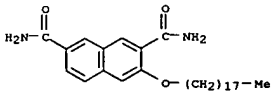
RN 838873-01-1 CAPLUS
CN 2,7-Naphthalenedicarboxamide, 3-(octyloxy)- (CA INDEX NAME)



RN 838873-02-2 CAPLUS
CN 2,7-Naphthalenedicarboxamide, 3-(dodecyloxy)- (CA INDEX NAME)

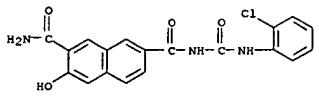


RN 838873-03-3 CAPLUS
CN 2,7-Naphthalenedicarboxamide, 3-(octadecyloxy)- (CA INDEX NAME)

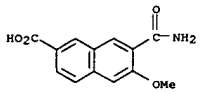


RN 838873-08-8 CAPLUS
CN 2,7-Naphthalenedicarboxamide, N7-[[(2-chlorophenyl)amino]carbonyl]-3-hydroxy- (CA INDEX NAME)

L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 838873-10-2 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-(aminocarbonyl)-6-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L11 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1080984 CAPLUS
DOCUMENT NUMBER: 142:58217
TITLE: Monoazo compound containing naphthalenol for coatings and method for producing same
INVENTOR(S): Ueno, Ryuzo; Otani, Junji; Yamashita, Tetsuya; Hisano, Takaya
PATENT ASSIGNEE(S): Kabushiki Kaisha Ueno Seiyaku Oyo Kenkyujo, Japan
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004108833	A1	20041216	WO 2004-JP7994	20040602
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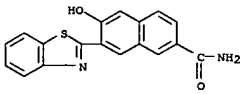
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1650267	A1	20060426	EP 2004-735802	20040602
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1826385	A	20060830	CN 2004-80021171	20040602
US 2006229439	A1	20061012	US 2005-559342	20051205
PRIORITY APPLN. INFO.:			JP 2003-157946 A	20030603
			WO 2004-JP7994 W	20040602

OTHER SOURCE(S): MARPAT 142:58217
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Disclosed is a monoazo compound represented by the formula (I) below or a salt thereof: (1) (wherein Y1 and Y2 represent a H or a group selected from those represented by the formula (II) or (III) -CO-E-X (at least one of Y1 and Y2 is a group represented by the formula (II)); Z represents a group selected from those represented by the following formula (IV), (V) or (VI)); and R1 represents H, alkali metal, C1-20 alky, acyl group, or phenylalkyl groups. The monoazo compound is useful for pigment, printing inks, coatings, dyes, and resist inks.
IT 808751-34-0

L11 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting materials; prodn. of monoazo dye contg. naphthalenol for coatings)
RN 808751-34-0 CAPLUS
CN 2-Naphthalenecarboxamide, 7-(2-benzothiazolyl)-6-hydroxy- (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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provided by InfoChem.

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DICTIONARY FILE UPDATES:  30 JAN 2008  HIGHEST RN 1001156-45-1

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TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

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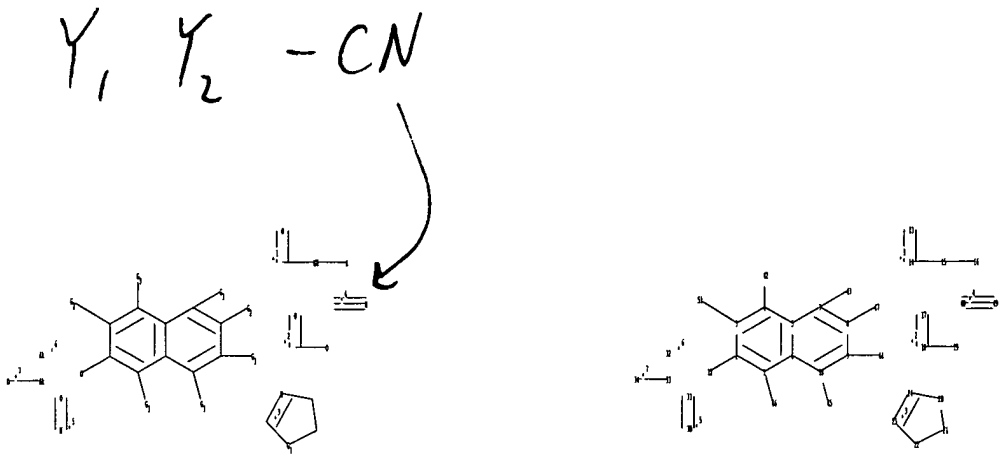

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12 13 14 15 16 17 18 19 30 31 32 33 34 42 43 44 45 46 47 48 49
51
ring nodes :
1 2 3 4 5 6 7 8 9 10 20 21 22 23 24
chain bonds :
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30-31 33-34 48-49
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 20-21 20-24 21-22 22-23
23-24
exact/norm bonds :
1-46 2-12 3-51 4-42 7-43 8-47 9-44 10-45 13-14 14-15 15-16 17-18 18-19
20-21 20-24 21-22 22-23 23-24 30-31 33-34 48-49
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10
isolated ring systems :
containing 1 :

G1:O,S,N

G2:[*1],[*2],[*3],[*4]

G3:H,NO2,X,[*5],[*6],[*7]

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FULL SEARCH INITIATED 13:22:35 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED    91747 TO ITERATE

100.0% PROCESSED    91747 ITERATIONS                    156 ANSWERS
SEARCH TIME: 00.00.02

L14          156 SEA SSS FUL L12

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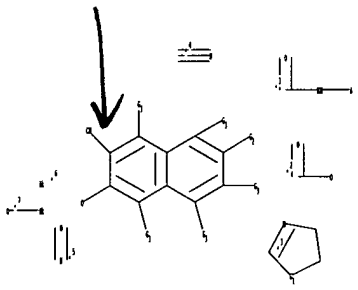
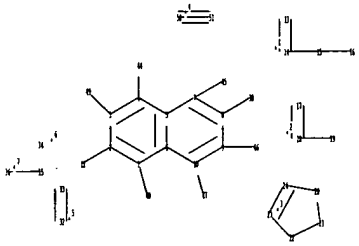
$Y_1 = CN$





```
chain nodes :
12  13  14  15  16  17  18  19  30  32  33  34  35  36  44  45  46  47  48  49  50
51
ring nodes :
1  2  3  4  5  6  7  8  9  10  20  21  22  23  24
chain bonds :
1-48  2-12  3-49  4-44  7-45  8-30  9-46  10-47  13-14  14-15  15-16  17-18  18-19
32-33  35-36  50-51
ring bonds :
1-2  1-6  2-3  3-4  4-5  5-6  5-7  6-10  7-8  8-9  9-10  20-21  20-24  21-22  22-23
 23-24
exact/norm bonds :
1-48  2-12  3-49  4-44  7-45  8-30  9-46  10-47  13-14  14-15  15-16  17-18  18-19
20-21  20-24  21-22  22-23  23-24  32-33  35-36  50-51
```

```
normalized bonds :
1-2  1-6  2-3  3-4  4-5  5-6  5-7  6-10  7-8  8-9  9-10
isolated ring systems :
containing 1 :


G1:O,S,N

G2:[*1],[*2],[*3],[*4]

G3:H,NO2,X,[*5],[*6],[*7]

Connectivity :
34:1 E exact RC ring/chain  35:1 E exact RC ring/chain
Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
12:CLASS  13:CLASS  14:CLASS  15:CLASS  16:CLASS  17:CLASS  18:CLASS  19:CLASS
20:Atom  21:Atom  22:Atom  23:Atom  24:Atom  30:CLASS  32:CLASS  33:CLASS  34:CLASS
 35:CLASS  36:CLASS  44:CLASS  45:CLASS  46:CLASS  47:CLASS  48:CLASS  49:CLASS
50:CLASS  51:CLASS
Element Count :
Node 34: Limited
    C,C1-7

Node 35: Limited
    C,C1-7




L15     STRUCTURE UPLOADED

=> d
L15 HAS NO ANSWERS
L15             STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=>
Uploading C:\Program Files\Stnexp\Queries\10566182\2 Y2 is CN.str
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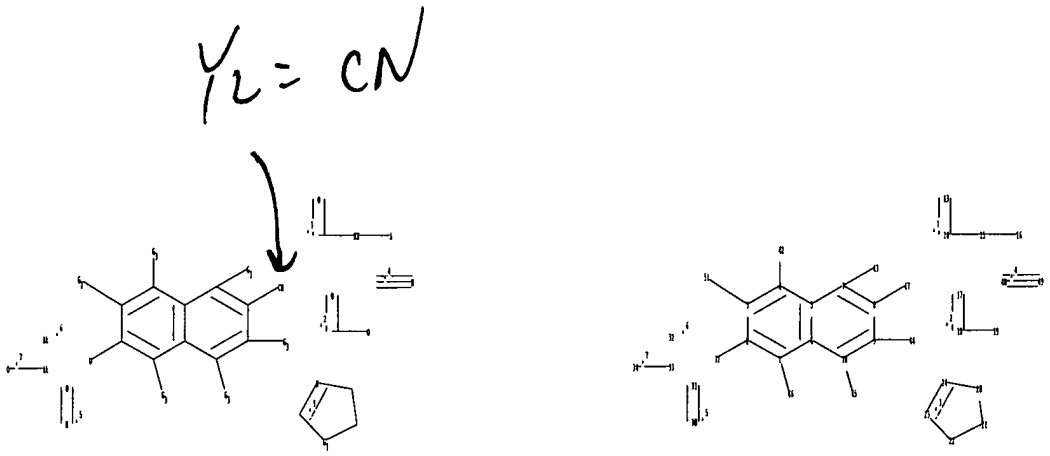

chain nodes :
12 13 14 15 16 17 18 19 30 31 32 33 34 42 43 44 45 46 47 48 49
51
ring nodes :
1 2 3 4 5 6 7 8 9 10 20 21 22 23 24
chain bonds :
1-46 2-12 3-51 4-42 7-43 8-47 9-44 10-45 13-14 14-15 15-16 17-18 18-19
30-31 33-34 48-49
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 20-21 20-24 21-22 22-23
23-24
exact/norm bonds :
1-46 2-12 3-51 4-42 7-43 8-47 9-44 10-45 13-14 14-15 15-16 17-18 18-19
20-21 20-24 21-22 22-23 23-24 30-31 33-34 48-49
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10
isolated ring systems :
containing 1 :

G1:O,S,N

G2:[*1],[*2],[*3],[*4]

G3:H,NO2,X,[*5],[*6],[*7]

Connectivity :
32:1 E exact RC ring/chain 33:1 E exact RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 30:CLASS 31:CLASS 32:CLASS 33:CLASS
34:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS 46:CLASS 47:CLASS 48:CLASS
49:CLASS 51:CLASS

```
Element Count :
Node 32: Limited
    C,C1-7

Node 33: Limited
    C,C1-7



L16     STRUCTURE UPLOADED

=> d
L16 HAS NO ANSWERS
L16             STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l15 full sub=L14
FULL SUBSET SEARCH INITIATED 13:23:31 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED -        12 TO ITERATE

100.0% PROCESSED      12 ITERATIONS                          12 ANSWERS
SEARCH TIME: 00.00.01

L17          12 SEA SUB=L14 SSS FUL L15

=> s l16 full sub=L14
FULL SUBSET SEARCH INITIATED 13:23:39 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED -         9 TO ITERATE

100.0% PROCESSED       9 ITERATIONS                           9 ANSWERS
SEARCH TIME: 00.00.01

L18           9 SEA SUB=L14 SSS FUL L16

=> s l17 or l18
L19          13 L17 OR L18

=> fil caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               264.40     574.40

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                   ENTRY    SESSION
CA SUBSCRIBER PRICE                                 0.00      -5.60

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FILE LAST UPDATED: 30 Jan 2008 (20080130/ED)

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=> s l19
L20 6 L19

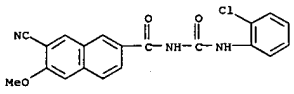
=> d ibib abs hitstr l20 tot

L20 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:810752 CAPLUS
DOCUMENT NUMBER: 143:193820
TITLE: Method for preparing 2-hydroxy-6-(ureidocarbonyl)naphthalenes by the addition reaction of aryl isocyanates with 2-hydroxy-6-(aminocarbonyl)naphthalenes
INVENTOR(S): Kitayama, Masaya; Wakamori, Hiroyuki; Yonetani, Nobuhiro
PATENT ASSIGNEE(S): Kabushiki Kaisha Ueno Seiyaku Oyo Kenkyujo, Japan
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1564206	A1	20050817	EP 2005-2251	20050203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
JP 2005220049	A	20050818	JP 2004-28343	20040204
KR 2005079228	A	20050809	KR 2005-9584	20050202
US 2005192282	A1	20050901	US 2005-48876	20050203
US 7030261	B2	20060418		
CN 1680302	A	20051012	CN 2005-10051849	20050204

PRIORITY APPLN. INFO.: JP 2004-28343 A 20040204

OTHER SOURCE(S): CASREACT 143:193820; MARPAT 143:193820
AB 2-Hydroxy-6-ureidocarbonylnaphthalenes [e.g., 2-[acetyloxy]-6-[(3-nitrophenylamino)carbonylamino]naphthalene] are prepared in high yield and selectivity by the addition reaction of aryl isocyanates (e.g., 3-nitrophenyl isocyanate) with 2-hydroxy-6-(aminocarbonyl)naphthalenes [e.g., 2-acetyloxy-6-(aminocarbonyl)naphthalene] in an organic solvent (e.g., xylene) at 90-200°.
IT 838873-22-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(method for preparing 2-hydroxy-6-(ureidocarbonyl)naphthalenes by the addition reaction of aryl isocyanates with 2-hydroxy-6-(aminocarbonyl)naphthalenes)
RN 838873-22-6 CAPLUS
CN 2-Naphthalenecarboxamide, N-[[(2-chlorophenyl)amino]carbonyl]-7-cyano-6-methoxy- (CA INDEX NAME)



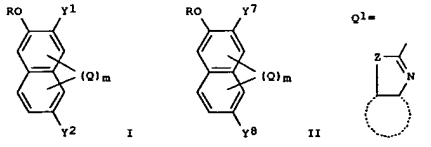
L20 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:120871 CAPLUS
DOCUMENT NUMBER: 142:197705
TITLE: Preparation of (aminocarbonyl)naphthol derivative, cyanonaphthol derivative, and method for producing them
INVENTOR(S): Ueno, Ryuzo; Kitayama, Masaya; Wakamori, Hiroyuki; Nishiaki, Miwa; Tanikawa, Katsunori
PATENT ASSIGNEE(S): Kabushiki Kaisha Ueno Seiyaku Oyo Kenkyujo, Japan
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

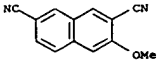
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005012231	A1	20050210	WO 2004-JP11014	20040727
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1652837	A1	20060503	EP 2004-768160	20040727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1860096	A	20061108	CN 2004-80027967	20040727
US 2006205952	A1	20060914	US 2006-566182	20060127

PRIORITY APPLN. INFO.: JP 2003-283894 A 20030731
JP 2004-28233 A 20040204
WO 2004-JP11014 W 20040727

OTHER SOURCE(S): MARPAT 142:197705
GI

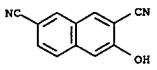


L20 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
AB An aminocarbonyl naphthol derivative represented by the formula (I) [wherein Y1 and Y2 represent a group selected from the group consisting of aminocarbonyl groups, carboxyl groups and groups represented by the formulas -(CONH)n-X1, -CO-O-X2, and Q1; and at least one of Y1 and Y2 is an aminocarbonyl group; wherein n = 1, 2; X1 = C1-20 (un)substituted and optionally branched aliphatic group optionally possessing unsatd. bonds, (un)substituted aromatic group, (un)substituted heterocyclyl possessing conjugated double bonds; X2 = C1-20 (un)substituted and optionally branched aliphatic group optionally possessing unsatd. bonds; the ring A - (un)substituted aromatic group, (un)substituted heterocyclyl possessing conjugated double bonds] is prepared by amidation of the corresponding hydroxynaphthalenecarboxylic acid derivative A novel cyanonaphthol derivative represented by the formula (II) [Y7 and Y8 independently represent a group selected from the group consisting of cyano group, groups represented by the formulas -(CONH)n-X1, -CO-O-X2, and Q1, carboxyl group, and aminocarbonyl group; and at least one of Y7 and Y8 is a cyano group] or salts thereof is prepared by treating the (aminocarbonyl)naphthol derivative with POCl3 for converting the aminocarbonyl group into the cyano group. Thus, 4.6 g 2-methoxy-3-(phenylaminocarbonyl)naphthalene-6-carboxylic acid was suspended in 45 g THF, treated with 3.6 g SOCl2 and allowed to react at 45° for 1 h, followed by distilling off excess SOCl2 together with the solvent to give a residue (acid chloride). The residue was dissolved in 50 g THF and warmed to 45°, followed by blowing NH3(g) into the solution, and the resulting mixture was allowed to react for 1 h to give, after filtration of the precipitated crystals, 3.0 g 2-methoxy-3-(phenylaminocarbonyl)naphthalene-6-carboxamide (III). III (3.0 g) was suspended in 40 g 1,2-dichlorobenzene, treated with 1.0 g POCl3, allowed to react at 140° for 1 h, cooled to 80°, treated with 50 g H2O, thoroughly stirred, to give, after filtration of the precipitated crystals, washing with MeOH, and drying, 1.8 g 2-methoxy-3-(phenylaminocarbonyl)-6-cyanonaphthalene as a white powder.
IT 838873-11-3P 838873-15-7P 838873-19-1P
838873-20-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of (aminocarbonyl)naphthol derivative by amidation of carboxynaphthol derivative and its conversion into cyanonaphthol derivative by dehydration with phosphorus oxychloride)
RN 838873-11-3 CAPLUS
CN 2,7-Naphthalenedicarbonitrile, 3-methoxy- (CA INDEX NAME)

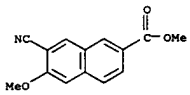


RN 838873-15-7 CAPLUS
CN 2,7-Naphthalenedicarbonitrile, 3-hydroxy- (CA INDEX NAME)

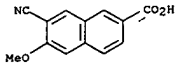
L20 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



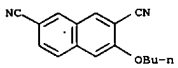
RN 838873-19-1 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-cyano-6-methoxy-, methyl ester (CA INDEX NAME)



RN 838873-20-4 CAPLUS
CN 2-Naphthalenecarboxylic acid, 7-cyano-6-methoxy- (CA INDEX NAME)

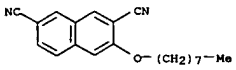


IT 838873-12-4P 838873-13-5P 838873-14-6P
838873-16-8P 838873-17-9P 838873-18-0P
838873-22-6P 838873-23-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of (aminocarbonyl)naphthol derivative by amidation of carboxynaphthol derivative and its conversion into cyanonaphthol derivative by
dehydration with phosphorus oxychloride)
RN 838873-12-4 CAPLUS
CN 2,7-Naphthalenedicarbonitrile, 3-butoxy- (CA INDEX NAME)

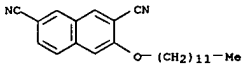


RN 838873-13-5 CAPLUS
CN 2,7-Naphthalenedicarbonitrile, 3-(octyloxy)- (CA INDEX NAME)

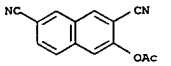
L20 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



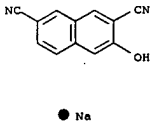
RN 838873-14-6 CAPLUS
CN 2,7-Naphthalenedicarbonitrile, 3-(dodecyloxy)- (CA INDEX NAME)



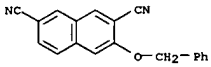
RN 838873-16-8 CAPLUS
CN 2,7-Naphthalenedicarbonitrile, 3-(acetyloxy)- (CA INDEX NAME)



RN 838873-17-9 CAPLUS
CN 2,7-Naphthalenedicarbonitrile, 3-hydroxy-, sodium salt (9CI) (CA INDEX NAME)

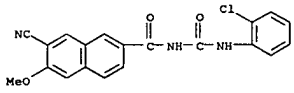


RN 838873-18-0 CAPLUS
CN 2,7-Naphthalenedicarbonitrile, 3-(phenylmethoxy)- (CA INDEX NAME)

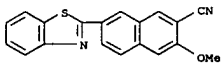


L20 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

RN 838873-22-6 CAPLUS
CN 2-Naphthalenecarboxamide, N-[[(2-chlorophenyl)amino]carbonyl]-7-cyano-6-methoxy- (CA INDEX NAME)



RN 838873-23-7 CAPLUS
CN 2-Naphthalenecarbonitrile, 7-(2-benzothiazolyl)-3-methoxy- (CA INDEX NAME)



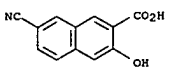
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1967:518076 CAPLUS
DOCUMENT NUMBER: 67:118076
ORIGINAL REFERENCE NO.: 67:22299a
TITLE: Maroon pigments
INVENTOR(S): Dehn, Joseph W., Jr.; Maitner, John J.
PATENT ASSIGNEE(S): Interchemical Corp.
SOURCE: U.S., 2 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3335168		19670808	US 1964-395294	19640909

GI For diagram(s), see printed CA Issue.
AB Continuation-in-part of U.S. 3,153,032 (CA 62: 668a). Fast maroon pigments were prepared by coupling diazotized 2,5-MeO(Z)C6H3NH2 (I) with II
(X = Br) (III) or II (X = CN) (IV). Thus, 8.73 g. III was coupled with 0.02 mole diazotized I (Z = NO2) to give a 90% yield of bluish-red solid, m. >300°. Similarly, other maroon pigments were prepared (Z, X, and % yield given): NO2, CN, 95; Et2NSO2, CN, 94; Et2NSO2, Br, 93. II were prepared as follows: A solution of 564 g. 3,2-HOC10H6CO2H in 2900 g. concentrated
H2SO4 at 0-3° was treated with 500 g. Br over 3 hrs. at -10° to -2°. The evolved HBr was passed into 2 gas washing bottles containing 1760 g. 20% oleum, and the oleum was then added slowly to the mixture
at -10° to -2°. The mixture was stirred overnight to room temperature, thinned with 787 g. concentrated H2SO4 and 875 g. 20% oleum, drowned in
13 kg. ice and 7.5 kg. H2O, filtered, washed neutral to Congo red, and dried to yield 968 g. yellow 4,7,3,2-Br2(HO)C10H4CO2H (V) m. 251-3° (EtOH). A mixture of 207 g. V, 745 ml. H2O, 26 g. NaOH, 35 g. Na2CO3, and
108 g. Na2SO3 was stirred in an autoclave at 150-60° for 8 hrs., cooled to 10°, filtered, washed with 2 l. 5% NaCl, dissolved in 4 l. H2O, clarified, and acidified at 80° by slow addition of 250 ml. 2.5M HCl to give 147 g. 7,3,2-Br(HO)C10H5CO2H (VI), m. 269-71° (AcOH). A mixture of 13.35 g. VI, 109 g. 2-methyl-5-ethylpyridine, and 5.37
g. CuCN was refluxed for 30 hrs. with stirring, cooled overnight, filtered, washed with 200 ml. Et2O, slurried in 200 ml. H2O, treated with 20 ml. concentrated HCl, stirred for 1 hr., filtered, washed neutral to litmus,
and dried at 45° to yield 7.20 g. 7,3,2-NC(HO)C10H5CO2H (VII), m. 258-60° (MeOH). PCl3 (4.2 g.) was added dropwise to a mixture of 11.1 g. 5,2,4-Cl(MeO)2C6H2NH2 (VIII), 12.9 g. VII, and 250 ml. dry PhMe at
60-5° with stirring, the mixture refluxed for 24 hrs., cooled to room temperature, the green precipitate filtered, suspended in 275 ml. H2O, treated with 3.3
g. Na2CO3, and PhMe steam distilled to yield 12 g. IV, m. 276-8° (o-Cl2C6H4). Similarly, VI and VIII gave III, m. 260-3°.
IT 1779-12-0P
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

L20 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
RN 1779-12-0 CAPLUS
CN 2-Naphthoic acid, 7-cyano-3-hydroxy- (7CI, 8CI) (CA INDEX NAME)

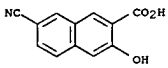


L20 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1965:3520 CAPLUS
DOCUMENT NUMBER: 62:3520
ORIGINAL REFERENCE NO.: 62:688d-f
TITLE: Aqueous dispersions of aminoplasts and epoxy compounds
for crease- and shrinkproofing textiles
INVENTOR(S): O'Brien, Joseph L.
PATENT ASSIGNEE(S): Rohm & Haas Co.
SOURCE: 4 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3153003		19641013	US 1961-90945	19610223
PRIORITY APPLN. INFO.:			US	19610223

GI For diagram(s), see printed CA Issue.
AB The incorporation of a small amount of H2O-soluble or easily H2O-dispersible monoepoxy alcs. of the formula I (CA 57, 15074c), where n is 1-5, into aqueous solns. of H2O-soluble aminoplast condensates from the group consisting of condensates of HCHO with aminotriazines, certain triazones, N,N'-trimethyleneurea, and N,N'-ethyleneurea, and their alkylated derivs. eliminates or reduces the Cl damage that would otherwise occur as a result of treatment with such aminoplasts. For cotton, the concentration of treating solution is 2-12% by weight, for rayon 5-20%, and for wool 5-15%. The aqueous solns. used contain each of the components in concns. of 2-25% by weight Cf.
CA 50, 6064c, 13468b; 51, 13412h.
IT 1779-12-0P, 2-Naphthoic acid, 7-cyano-3-hydroxy-
RL: PREP (Preparation)
(preparation of)
RN 1779-12-0 CAPLUS
CN 2-Naphthoic acid, 7-cyano-3-hydroxy- (7CI, 8CI) (CA INDEX NAME)

Same



3153107
3153003
3153032

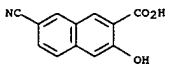
4-6 - same cmpd

L20 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1965:3519 CAPLUS
DOCUMENT NUMBER: 62:3519
ORIGINAL REFERENCE NO.: 62:688c-d
TITLE: Removing oil from textile fibers while binding them together by resins
INVENTOR(S): Cole, Thomas D.
PATENT ASSIGNEE(S): Lockport Mills Research and Development Corp.
SOURCE: 5 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3153107		19641013	US 1960-75223	19601212
PRIORITY APPLN. INFO.:			US	19601212

AB Loose fibers which have been contaminated with oil can be formed into a feltlike packing material; at the same time, the oil can be removed from the fibers. The fibers are mixed with a resinous substance and placed between 2 conveyor belts of open-mesh construction; the belts are moved at approx. the same speed above and below the fibers while air heated sufficiently to volatilize the oil adhering to the fibers is blown through the material. The heat also cures the resinous substance, causing the fibers to adhere to each other and forming a sheet of the material.
IT 1779-12-0P, 2-Naphthoic acid, 7-cyano-3-hydroxy-
RL: PREP (Preparation)
(preparation of)
RN 1779-12-0 CAPLUS
CN 2-Naphthoic acid, 7-cyano-3-hydroxy- (7CI, 8CI) (CA INDEX NAME)

Same



L20 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1965:3451 CAPLUS
DOCUMENT NUMBER: 62:3451
ORIGINAL REFERENCE NO.: 62:668a-f
TITLE: Pigments from 7-substituted Naphthol AS derivatives
INVENTOR(S): Dehn, Joseph W., Jr.; Maitner, John J.
PATENT ASSIGNEE(S): Interchemical Corp.
SOURCE: 3 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3153032		19641013	US 1961-152613	19611115
PRIORITY APPLN. INFO.:			US	19611115

GI For diagram(s), see printed CA Issue.
AB Compds. of the general formula I where XBr in or CN are superior in lightfastness to previous pigments of this type. Thus, 564 g. 3,2-HOC10H6CO2H was added to 2900 g. concentrated H2SO4 at 0-3°, then during 3 hrs., 500 g. was added dropwise at -10 to -2°, the HBr formed being passed through 2 gas-washing bottles containing 1760 g. 20% oleum and oxidized to Br. The oleum in the wash bottles was added slowly to the reaction mixture at -10 to -2°, the whole stirred overnight reaching room temperature, then concentrated 787 g. H2SO4 and oleum 875 g. 20% added, the mixture drowned in 13 kg. ice and 7.5 kg. H2O, the yellow precipitate filtered and washed neutral to Congo red, giving 968 g. 4,7,3,2-Br2(HO)-C10H4CO2H (Ia), m. 251-3° (EtOH). Ia (207 g.) was stirred into 680 ml. hot H2O, 26 g. NaOH in 65 ml. H2O added, the mixture together with 35 g. Na2CO3 and 108 g. Na2SO3 kept overnight in a closed autoclave, which was then heated 8 hrs. with stirring at 150-60° (maximum pressure 110 psi.). After 15 hrs., the mixture was cooled to 10°, filtered, washed with 21.5% aqueous NaCl, the yellow Na salt dissolved in 4000 ml. hot H2O, clarified, acidified at 80° with 250 ml. 2.5M HCl, the precipitate filtered, washed neutral and oven-dried, giving 147 g. 7,3,2-Br(HO)C10H5CO2H (II), m. 269-71° (AcOH). II 13.35, 2-methyl-5-ethylpyridine 109, and CuCN 5.37 g. were refluxed 1 hr. at 173° and heated 29 hrs. more, then the mixture cooled, kept overnight, the precipitate filtered, washed with 200 ml. Et2O, the cake placed in 200 ml. H2O, 20 ml. concentrated HCl added, the suspension stirred 1 hr., filtered, washed neutral to litmus, and dried at 45°, giving 7.20 g. 7,3,2-NC(HO)C10H5CO2H (III), m. 258-60° (MeOH). III (12.9 g.) was mixed with 250 ml. PhMe, and 11.1 g. 2,4,5-(MeO)2ClC6H4NH2 (IV), 4.2 g. PCl3 added dropwise during 30 min. at 60-5° with stirring, the mixture was refluxed 24 hrs., cooled to room temperature, the green solid was filtered, suspended in 275 ml. H2O, treated with 3.3 g. Na2CO3, distilled to remove PhMe, filtered hot, washed neutral and dried at 45° to give 14 g. green solid, m. 266-73°, which was dissolved in 400 ml. EtOH, 30 ml. H2O, and 4.4 g. NaOH, the solution filtered, acidified with 13 ml. 37% HCl in 35 ml. H2O, the yellow

L20 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
solid filtered, washed with EtOH and H2O, dried at 45°, giving 12 g. 7,3,2-NC(HO)C10H5CONHC6H2(OMe)2Cl-2,4,5 (V), m. 276-8° (o-Cl2C6H4). PhMe (500 ml.), 53.4 g. II, and 37.5 g. IV were heated to remove H2O, 100 ml. PhMe distd. then 13.75 g. PCl3 added dropwise during 45 min. at 60-68°, the mixt. refluxed 27 hrs. at 112°, 11 g. Na2CO3 and 1 l. H2O added, and PhMe steam distd. The product was filtered, washed neutral, and dried at 45° to give 69.7 g. green cryst. solid, m. 235-8°, which was dissolved in alc. NaOH, the soln. filtered, acidified with HCl, the ppt. filtered, washed with EtOH and H2O, and dried at 45° giving 68% 7,3,2-Br(HO)C10H5CONHC6H2(OMe)2Cl-2,4,5 (VI) m. 260-3°. 5,2-O2N(MeO)C6H3NH2 (VII) was diazotized and coupled with VI giving a 90% yield of a bluish red solid, m. >300°. Similarly, other pigments were prepd. (reactants, % yield, and shade given): VII → V, 95, maroon; 5,2-Et2NSO2(MeO)C6H3NH2 (VIII) → V, 94, maroon; VIII → VI, 93, --.

IT 1779-12-0
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 1779-12-0 CAPLUS

CN 2-Naphthoic acid, 7-cyano-3-hydroxy- (7CI, 8CI) (CA INDEX NAME)